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EXAMINER

DELGADO, MICHAEL A

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/680,122

Applicant(s)

DEEN ET AL.

Examiner

Michael S. A. Delgado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☒ Claim(s) 1 and 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Claim Objections*

1. Claim 34 is objected to because of the following informalities: "the client system that the event the one or more of the of the plurality of applications requested notification of occurred" should be "the client system that the event of one or more of the plurality of applications requested notification of occurred". Appropriate correction is required.

2.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9 and 19-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,574,630 by Augustine et al in view of US Patent No. 5,935,211 by Osterman.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

In Claim 1, Augustine teaches about a network system including a server system “even manager” (Fig 1, 120), a client system “computing devices” (Fig 1, 105), and one or more other network devices (Fig 1), wherein the server system monitors the occurrence of events (Col 5, lines 20-45), sends notification data to the client system “computing devices” (Col 9, lines 45-55), when notification has been requested (Col 5, lines 20-45), after one of the monitored events occurs (Col 9, lines 45-55), and may have client data requiring transmission to the client system (Col 4, lines 1-15), a method for efficiently sending notification to the client system when the event has occurred (Col 2, lines 15-32), so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system, the method. These features are inherent from the above method, as sending a notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. All these functions are covered by method of the prior art. comprising:

an act of the server system determining that a notification is to be sent to the client system upon the occurrence of one of the monitored events (Col 3, lines 35-55);

an act of the server system sending notification data using a connectionless protocol “SMTP” to the client system, if one of the monitored events occurs (Col 3, lines 45-67);

an act of the server system attempting to receive contact from the client device when the server system has client data to transmit to the client system (Col 4, lines 1-15); and

an act of the server system transmitting the client data to the client system using the connection-oriented protocol, after the server system receives contact using the connection-oriented protocol (Col 4, lines 1-15).

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but does not explicitly teach about the server system using a connection-oriented protocol to contact client system.

The use of a connection-oriented protocol "TCP/IP" in a distributed notification system is well known in the art as disclosed by Osterman (Col 2, lines 55-65). It would have been obvious at the time of the invention for some one of ordinary skill to use a connection-oriented protocol in order to guarantee the delay between the source and destination.

In delay sensitive operation like video, it is important for data packets to arrive in the correct order. Application of this nature requires a protocol that guarantees a fix delay between the source and destination to insure that no packet will be received out of order. Reserving a dedicated path between source and destination does this.

In Claim 2, Augustine teaches about a method as recited in claim 1 wherein the server system determines that a notification is to be sent to the client system by receiving a message from the client system (Col 4, lines 1-15).

In Claim 3, Augustine teaches about a method as recited in claim 1 wherein the server system monitors for the occurrence of events by executing separate modules "watch list" to monitor individual events (Col 5, lines 24-45).

In Claim 4, Augustine teaches about a method as recited in claim 1 wherein in the connectionless protocol is User Datagram Protocol "SMTP" (Col 3, lines 45-67).

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In Claim 5, Augustine teaches about a method as recited in claim 1 wherein the notification data further comprises data that notifies the client system that the server has additional data associated with the occurrence of the event (Col 9, lines 45-55).

In Claim 6, a method as recited in claim 1 wherein the connection-oriented protocol is Transmission Control Protocol (Covered in claim 1).

In Claim 7, Augustine teaches about a network system including a server system "Event manager" (Fig 1, 120), a client system "computer devices" (Fig 1, 105), and one or more other network devices (Fig 1), wherein the server system monitors the occurrence of events (Col 5, lines 20-45), sends notification data to the client system (Col 9, lines 45-55), when notification has been requested (Col 5, lines 20-45), after one of the monitored events occurs (Col 9, lines 45-55), and may have client data requiring transmission to the client system (Col 4, lines 1-15), a method for efficiently sending notification to the client system when the event has occurred (Col 2, lines 15-32), so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system. These features are inherent from the above method, as sending a notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. All these functions are covered by method of the prior art, the method comprising:

an act of the server system determining that a notification is to be sent to the client system upon the occurrence of one of the monitored events (Col 3, lines 35-55);

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an act of the server system sending notification data using a connectionless protocol "SMTP" to the client system, if one of the monitored events occurs (Col 3, lines 45-67); and a step for sending client data, after the notification data is sent, to the client system using a connection-oriented protocol (Col 4, lines 1-15) (Covered in claim 1).

In Claim 8, Augustine teaches about a computer program product for implementing, in a network system including a server system "event manager" (Fig 1, 120), a client system "computer device" (Fig 1, 105), and one or more other network devices (Fig 1), wherein the server system monitors the occurrence of events (Col 5, lines 20-45), sends notification data to the client system (Col 9, lines 45-55), when notification has been requested (Col 5, lines 20-45), after one of the monitored events occurs (Col 9, lines 45-55), and may have client data requiring transmission to the client system (Col 4, lines 1-15), a method for efficiently sending notification to the client system when the event has occurred (Col 2, lines 15-32), so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system. These features are inherent from the above method, as sending a notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. All these functions are covered by method of the prior art, the computer product comprising:

a computer-readable medium carrying computer-executable instructions that, when executed at the server system, cause the server system to perform the following (Fig 1):

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an act of causing the server system to determine that a notification is to be sent to the client system upon the occurrence of one of the monitored events (Col 3, lines 35-55);

an act of causing the server system to send notification data using a connectionless protocol "SMTP" to the client system, if one of the monitored events occurs (Col 3, lines 45-67);

an act of causing the server system to attempt to receive contact from the client system using a connection-oriented protocol when the server system has client data to transmit to the client system (Covered in claim 1); and

an act of causing the server system to transmit the client data to client system using the connection-oriented protocol, after the server system receives contact using the connection-oriented protocol (Covered in claim 1).

In Claim 9, Augustine teaches about a computer program product for implementing (Fig 1), in a network system including a server system "event manager" (Fig 1, 120), a client system "computer device" (Fig 1, 105), and one or more other network devices (Fig 1), wherein the server system monitors the occurrence of events (Col 5, lines 20-45), sends notification data to the client system (Col 9, lines 45-55), when notification has been requested (Col 5, lines 20-45), after one of the monitored events occurs (Col 9, lines 45-55), and may have client data requiring transmission to the client system (Col 4, lines 1-15), a method for efficiently sending notification to the client system when the event has occurred (Col 4, lines 1-15), so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system. These features are inherent from the above method, as sending a



notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. These features are inherent from the above method, as sending a notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. All these functions are covered by method of the prior art, the computer product comprising:

a computer-readable medium carrying computer-executable instructions that, when executed at the server system, cause the server system to perform the following (Fig 1):

an act of causing the server system to determine that a notification is to be sent to the client system upon the occurrence of one of the monitored events (Col 3, lines 35-55);

an act of causing the server system to send notification data using a connectionless protocol "SMTP" to the client system, if one of the monitored events occurs (Col 3, lines 45-67);  
and

a step for causing the server system to send client data, after the notification data is sent, to the one of the plurality of client systems using a connection-oriented protocol (Col 4, lines 1-15), (Covered in claim 1).

In Claim 19, Augustine teaches about a network system including a server system "even manager" (Fig 1, 120), and a plurality of client systems "computing devices" (Fig 1, 105), wherein individual client systems from among the plurality client systems can request notification of the occurrence of one or more of a plurality of events and wherein the server system monitors to determine if any of a plurality of events has occurred and wherein the server system must send notification to individual client systems for every one of the plurality of events

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that occurs for which individual client systems have requested notification (Col5, lines 5-45), a method for efficiently notifying one of the plurality of client systems of the occurrence of more than one event from among the plurality of events so as to preserve the processing capacity of the server system and the plurality of client systems (Col 9, lines 10-55), and so as to preserve bandwidth on the network system (These features are inherent from the above method, as sending a notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. All these functions are covered by method of the prior art), the method comprising:

an act of the server system determining that a notification is to be sent to each individual client system from among the plurality of client systems that requested notification of the occurrence of one of the monitored events (Col 5, lines 20-45);

an act of the server system associating a separate storage location "index" with each client and using the separate storage locations to store data on the occurrence of events which must be sent to each of the associated clients (Col 4, lines 60-67)

an act of server system appending to the separate storage locations the occurrence of successive events requested by individual client systems in order to save a record of the occurrence of the events until notification is ready to be sent to the individual client systems of the occurrence of all the saved events (Col 4, lines 60-67); and

an act of the server system using a connectionless protocol to send separately stored data to one of the plurality of client systems in order to attempt to simultaneously notify the one of the plurality of client systems of the occurrence of all the events for which the one of the plurality of clients has requested notification (covered in claim 1), (Col 4, lines 1-15).

In Claim 20, Augustine teaches about a method as recited in claim 19 wherein the separate storage locations are included on one or more mass storages device associated with the server system (Col 4, lines 45-67).

In Claim 21, Augustine teaches about a method as recited in claim 19 wherein the server system monitoring for the occurrence of events comprises executing separate modules “watch list” to monitor individual events (Col 5, lines 24-45).

In Claim 22, Augustine teaches about a method as recited in claim 19 wherein the connectionless protocol is User Datagram Protocol “SMTP” (Col 3, lines 45-67).

In Claim 23, Augustine teaches about a method as recited in claim 22 wherein the simultaneous notification comprises receipt of one User Datagram Protocol packet (Col 3, lines 45-67).

In Claim 24, Augustine teaches about a network system including a server system “even manager” (Fig 1, 120), and a plurality of client systems “computing devices” (Fig 1, 105), wherein individual client systems from among the plurality of client systems can request notification of the occurrence of one or more of a plurality of events and wherein the server system monitors to determine if any of a plurality of events has occurred and wherein the server system must send notification to individual client systems for every one of the plurality of events

that occurs for which the individual client systems have requested notification (Col 5, lines 5-45), a method for efficiently notifying an individual client system of the occurrence of more than one event from among the plurality of events so as to preserve the processing capacity of the server system and the plurality of client systems (Col 9, lines 10-55), and so as to preserve bandwidth on the network system (These features are inherent from the above method, as sending a notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. All these functions are covered by method of the prior art), the method comprising:

an act of the server system determining that a notification is to be sent to each individual client system from among the plurality of client systems that requested notification of the occurrence of one of the monitored events (Col 6, lines 1-15);

a step for the server system to separately store, for each of the plurality of client systems, data relating to the occurrence of the events for which each of the plurality of client systems requested notification (Col 4, lines 60-67);

an act of the server system using a connectionless protocol "SMTP" to send separately stored data to one of the plurality of client systems in order to attempt to simultaneously notify the one of the plurality of client systems of the occurrence of all the events for which the one of the plurality of clients has requested notification (Col 4, lines 60-67), (Col 6, lines 1-15).

In Claim 25, Augustine teaches about a computer program product for implementing, in a network system including a server system "even manager" (Fig 1, 120), and a plurality of client

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systems "computing devices" (Fig 1, 105), wherein individual client systems from among the plurality client systems can request notification of the occurrence of one or more of a plurality of events and wherein the server system monitors to determine if any of a plurality of events has occurred and wherein the server system must send notification to individual client systems for every one of the plurality of events that occurs for which individual client systems have requested notification (Col 5, lines 5-45), a method for efficiently notifying one of the plurality of client systems of the occurrence of more than one event from among the plurality of events so as to preserve the processing capacity of the server system and the plurality of client systems (Col 9, lines 10-55), and so as to preserve bandwidth on the network system (These features are inherent from the above method, as sending a notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. All these functions are covered by method of the prior art), the computer product comprising:

a computer-readable medium carrying computer-readable instructions, that when executed at the server system, cause the server system to perform the following (Col 4, lines 45-67):

an act of determining that a notification is to be sent to each individual client system from among the plurality of client systems that requested notification of the occurrence of one of the monitored events (Col 5, lines 5-45);

an act of associating a separate storage location "index" with each client system, the server system using the separate storage locations to store data on the occurrence of events which must be sent to each of the client systems (Col 4, lines 60-67);

an act of appending to the separate storage locations the occurrence of successive events requested by individual client systems in order to save a record of the occurrence of the events until the server system is ready to send notification to the individual client systems of the occurrence of all the saved events (Col 4, lines 60-67); and

an act of using a connectionless protocol "SMTP" to send the contents of one of the separate storage locations to the client system associated with the one of the separate storage locations in order to attempt to simultaneously notify the associated individual client system of the occurrence of all the events stored in the separate storage location (Col 9, lines 25-55).

In Claim 26, Augustine teaches about a computer program product for implementing, in a network system including a server system "even manager" (Fig 1, 120), and a plurality of client systems "computing devices" (Fig 1, 105), wherein individual client systems from among the plurality client systems can request notification of the occurrence of one or more of a plurality of events and wherein the server system monitors to determine if any of a plurality of events has occurred and wherein the server system must send notification to individual client systems for every one of the plurality of events that occurs for which individual client systems have requested notification (Col 5, lines 5-45), a method for efficiently notifying one of the plurality of client systems of the occurrence of more than one event from among the plurality of events so as to preserve the processing capacity of the server system and the plurality of client systems (Col 9, lines 10-55), and so as to preserve bandwidth on the network system (These features are inherent from the above method, as sending a notification instead of a whole message, reduces

the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. All these functions are covered by method of the prior art), the computer product comprising:

a computer-readable medium carrying computer-readable instructions, that when executed at the server system, cause the server system to perform the following (Col 4, lines 25-67):

an act of determining that a notification is to be sent to each individual client system from among the plurality of client systems that requested notification of the occurrence of one of the monitored events (Col 5, lines 10-45);

a step for separately storing for each of the plurality of client systems data relating to the occurrence of the events "index and order" for which each of the plurality of client systems requested notification (Col 4, lines 60-67);

an act of using a connectionless protocol to send separately stored data to one of the plurality of client systems in order to attempt to simultaneously notify the one of the plurality of client systems of the occurrence of all the events for which the one of the plurality of clients has requested notification (Col 9, lines 25-55).

In Claim 27, Augustine teaches about a network system including a server system "even manager" (Fig 1, 120), and a client system "computing devices" (Fig 1, 105), wherein the server system monitors the occurrence of events, sends notification to the client system when one of the monitored events occurs (Col 5, lines 5-45), and may have client data requiring transmission to the client system, a method for efficiently notifying applications associated with the client

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system when an event has occurred so as to preserve the processing capacity of server system and the client system (Col 6, lines 50-67), and so as to preserve bandwidth on the network system (These features are inherent from the above method, as sending a notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. All these functions are covered by method of the prior art), the method comprising:

- an act of the client system determining that one or more of a plurality of applications associated with the client system requesting notification of an occurrence of an event (Col 5, lines 10-45);

- an act of the client system receiving one notification from the server system using a connectionless protocol "SMTP" notifying the client system that the event the one or more of the of the plurality of applications requested notification of occurred (Col 9, lines 25-55);

- an act of the client system transmitting the received notification to the one or more of the plurality of applications (Col 6, lines 50-65); and

- an act of the client system attempting to create a connection using a connection-oriented protocol and receive client data associated with the one or more of the plurality of applications over the connection (Col 4, lines 1-15), (covered in claim 1).

In Claim 28, Augustine teaches about a method as recited in claim 27 wherein the server system monitoring for the occurrence of events comprises executing separate modules "watch list" to monitor individual events (Col 5, lines 24-45).



In Claim 29, Augustine teaches about a method as recited in claim 27 wherein the act of the client system determining that one or more of a plurality of applications associated with the client system requested notification of the event comprises a module “vCalendar” to detect the one or more of a plurality of applications (Col 6, lines 50-67).

In Claim 30, Augustine teaches about a method as recited in claim 29 wherein the act of transmitting the received notification to one or more of the plurality of applications comprises the module transmitting the received notification (Col 6, lines 50-67).

In Claim 31, Augustine teaches about a method as recited in claim 27 wherein the connectionless protocol is the User Datagram Protocol “SMTP” (Col 3, lines 45-67).

In Claim 32, Augustine teaches about a method as recited in claim 27 wherein the connection-oriented protocol is Transmission Control Protocol (covered in claim 1).

In Claim 33, Augustine teaches about a network system including a server system “even manager” (Fig 1, 120), and a client system “computing devices” (Fig 1, 105), wherein the server system monitors the occurrence of events, sends notification to the client system when one of the monitored events occurs (Col 5, lines 5-45), and may have client data requiring transmission to the client system, a method for efficiently notifying applications associated with the client system when an event has occurred (Col 6, lines 50-67), so as to preserve the processing capacity of server system and the client system, and so as to preserve bandwidth on the network

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system (These features are inherent from the above method, as sending a notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. All these functions are covered by method of the prior art),, the method comprising:

an act of the client system determining that one or more of a plurality of applications associated with the client system requesting notification of an occurrence of an event (Col 6, lines 50-67);

a step for the client system to distribute a received notification to the one or more of the plurality of applications, the notification indicating that the event occurred (Col 6, lines 50-67); and

an act of the client system attempting to create a connection using connection-oriented protocol and receive client data associated with the one or more of the plurality of applications over the connection (Col 4, lines 1-15), (covered in claim 1).

In Claim 34, Augustine teaches about a computer product claim for implementing, in a network system including a server system “even manager” (Fig 1, 120), and a client system “computing devices” (Fig 1, 105), wherein the server system monitors the occurrence of events, sends notification to the client system when one of the monitored events occurs, and may have client data requiring transmission to the client system (Col 5, lines 5-45), a method for efficiently notifying applications associated with the client system when an event has occurred so as to preserve the processing capacity of server system and the client system (Col 6, lines 50-67), and so as to preserve bandwidth on the network system (These features are inherent from the

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above method, as sending a notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing.

All these functions are covered by method of the prior art), the computer product comprising:

a computer-readable medium carry computer executable-instructions that, when executed at the client computer, cause the client computer to perform the following (Col 6, lines 50-67):

an act of determining that one or more of a plurality of applications associated with the client system has requested notification of the occurrence of an event (Col 6, lines 50-67);

an act of receiving one notification from the server system using a connectionless protocol "Email" notifying the client system that the event the one or more of the of the plurality of applications requested notification of occurred (Col 6, lines 50-67);

an act of transmitting the received notification to the one or more of the plurality of applications (Col 6, lines 50-67); and

an act of attempting to create a connection using a connection- oriented protocol and receive client data associated with the one or more of the plurality of applications over the connection (Col 4, lines 1-15), (covered in claim 1).

In Claim 35, Augustine teaches about a computer product claim for implementing, in a network system including a server system "even manager" (Fig 1, 120), and a client system "computing devices" (Fig 1, 105), wherein the server system monitors the occurrence of events, sends notification to the client system when one of the monitored events occurs, and may have client data requiring transmission to the client system (Col 5, lines 5-45), a method for efficiently notifying applications associated with the client system when an event has occurred so

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as to preserve the processing capacity of server system and the client system (Col 6, lines 50-67), and so as to preserve bandwidth on the network system, the computer product comprising:

a computer-readable medium carry computer executable-instructions that, when executed at the client computer, cause the client computer to perform the following (Col 6, lines 50-67):

an act of determining that one or more of a plurality of applications associated with the client system has requested notification of the occurrence of an event (Col 6, lines 50-67);

a step for distributing a received notification to the one or more of the plurality of applications, the notification indicating that the event occurred (Col 6, lines 50-67); and

an act of attempting to create a connection using a connection oriented protocol and receive client data associated with the one or more of the plurality of applications over the connection (Col 4, lines 1-15), (covered in claim 1).

Claims 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,574,630 by Augustine et al and US Patent No. 5,935,211 by Osterman. in view of US Patent No. 6,070,184 by Blount et al.

In Claim 10, Augustine teaches about a network system including a server system “even manager” (Fig 1, 120) and a client system “computing devices” (Fig 1, 105), wherein the server system monitors the occurrence of events and sends notification data to the client system when one of the monitored events occurs and wherein the client system attempts to establish a communication link to the server system using a connection oriented protocol (covered in claim 1), after the client system receives event notification from the server system (Col 2, lines 15-32),

when the server system needs to send additional data to the client system, a method for the server system to repeatedly attempt notification of the client system so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system, the method comprising:

an act of the server system determining that a notification is to be sent to the client system upon the occurrence of one of the monitored events (Col 3, lines 35-55);

an act of the server system sending notification data to the client system using a connectionless protocol "SMTP" to notify the client system of the occurrence of a monitored (Col 3, lines 45-67); and

an act of the server system sending additional data to the client system if a communication link using a connection-oriented protocol is established (covered in claim 1).

but does not explicitly teach an act of the server system resending the notification data using a connectionless protocol to the client system at time intervals which, at least for a time, increase after each failure to detect the establishment of a communication link using a connection-oriented protocol from the client system, wherein the resending occurs until a communication link using a connection-oriented protocol is established from the client system or until a timeout period has elapsed.

The backoff algorithm is well known in data message service. The backoff algorithm is used to prevent congestion whenever a network is having problem delivering a message as disclosed by Blount (Col 14, lines 40-55).

It would have been obvious at the time of the invention for some one of ordinary skill to use a backoff algorithm to prevent congestion in a network delivery system.

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The backoff algorithm is a proven method used to prevent congestion on a network. By increasing the time after each attempt to contact the client, a server is free to attend to other clients that are available without over burdening itself.

In Claim 11, Augustine teaches about a method as recited in claim 10 wherein the server system determines that notification is to be sent to the client system by receiving a message from the client system (Col 4, lines 1-15).

In Claim 12, Augustine teaches about a method as recited in claim 10, wherein the server system monitors for the occurrence of events by executing separate modules “watch list” to monitor individual events (Col 5, lines 20-45).

In Claim 13, Augustine teaches about a method as recited in claim 10, wherein the connectionless protocol is User Datagram Protocol (Col 3, lines 45-67).

In Claim 14, Augustine teaches about a method as recited in claim 10, wherein the time interval doubles after each successive failure to establish communication (covered in claim 10).

In Claim 15, Augustine teaches about a method as recited in claim 10, wherein the connection-oriented protocol is Transmission Control Protocol (covered in claim 1).

In Claim 16, Augustine teaches about a network system including a server system “even manager” (Fig 1, 120), and a client system “computing devices” (Fig 1, 105), wherein the server system monitors the occurrence of events and sends notification data to the client system when one of the monitored events occurs and wherein the client system establishes a communication link to the server system using a connection-oriented protocol (Covered in Claim 1), after the client system receives event notification from the server system, when the server system needs to send additional data to the client system (Covered in Claim 10), a method for the server system to repeatedly attempt notification of the client system so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system (These features are inherent from the above method, as sending a notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. All these functions are covered by method of the prior art), the method comprising:

an act of the server system determining that a notification is to be sent the client system upon the occurrence of one of the monitored events (Col 3, lines 35-55);

a step for the server system resending notification data, using a connectionless protocol, to the client system at predefined time intervals which, at least for a time, increase, in an attempt to notify the client system a monitored event has occurred and a communications link can be received from the client system using a connection-oriented protocol (covered in claim 1 and 10);  
and

an act of the server system sending additional data to the client system if a communication link using a connection-oriented protocol is established (covered in claim 1), (Col 4, lines 1-15).

In Claim 17, Augustine teaches about a computer program product for implementing, in a network system including a server system “even manager” (Fig 1, 120) and a client system “computing devices” (Fig 1, 105), wherein the server system monitors the occurrence of events and sends notification data to the client system when one of the monitored events occurs and wherein the client system establishes a communication link to the server system using a connection-oriented protocol (Covered in Claim 1), after the client system receives event notification from the server system, when the server system needs to send additional data to the client system, a method for the server system to repeatedly attempt notification of the client system so as to preserve the processing capacity of the server system and the client system (Covered in Claim 10), and so as to preserve bandwidth on the network system. (These features are inherent from the above method, as sending a notification instead of a whole message, reduces the traffic between server system and client system. The reduce traffic lead to the reduction in server processing. All these functions are covered by method of the prior art), the computer to product comprising:

a computer-readable medium carrying computer-executable instructions that, when executed at the server system, cause the server system to perform the following (Fig 1,101):

an act of determining that a notification is to be sent to the client system upon the occurrence of one of the monitored events (Col 3, lines 35-55);



an act of sending notification data the client system using a connectionless protocol to notify the client system of the occurrence of a monitored event and (Col 3, lines 45-67);  
an act of resending the notification data using a connectionless protocol to the client system at time intervals which, at least for a time, increase after each failure to detect the establishment of a communication link using a connection-oriented protocol from the client system, wherein the resending occurs until a communication link using a connection-oriented protocol is established from the client system or until a timeout period has elapsed (covered in claim 1 and 10); and

an act of sending additional data to the client system if a communication link using a connection-oriented protocol is established (covered in claim 1), (Col 4, lines 1-15).

In Claim 18, Augustine teaches about a computer program product for implementing, in a network system including a server system “even manager” (Fig 1, 120) and a client system “computing devices” (Fig 1, 105), wherein the server system monitors the occurrence of events and sends notification data to the client system when one of the monitored events occurs and wherein the client system establishes a communication link to the server system using a connection-oriented protocol (Covered in Claim 1),, after the client system receives event notification from the server system, when the server system needs to send additional data to the client system, a method for the server system to repeatedly attempt notification of the client system so as to preserve the processing capacity of the server system and the client system (Covered in Claim 10), and so as to preserve bandwidth on the network system, the computer product comprising:

a computer-readable medium carrying computer-executable instructions that, when executed at the server system, cause the server system to perform the following (Fig 1, 101):

an act of determining that a notification is to be sent to the client system upon the occurrence of one of the monitored events (Col 3, lines 35-55);

a step for resending notification data to the client system at time intervals which, at least for a time, increase, using a connectionless protocol in an attempt to notify the client system a monitored event has occurred and a communications link can be received using a connection-oriented protocol (covered in claim 1 and 10); and

an act of sending additional data to the client system if a communication link using a connection-oriented protocol is established (covered in claim 1), (Col 4, lines 1-15).

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,463,464 by Lazaridis et al, teaches about a system and method for pushing information from a host system to a mobile data communication device.

US Patent No. 6,385,644 by Devine et al, teaches about a multi-threaded web based user inbox for report management.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. A. Delgado whose telephone number is 703-305-8057. The examiner can normally be reached on 8 AM - 4.30PM.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703) 308-5221. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



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